CLAIMS

1. An access network system for making access to a given network by a subscriber terminal, said access network

5 system comprising:

a first network terminal device connected to said given network and terminating a first network for transfer on a layer 2 level;

a second network terminal device able to put said

10 subscriber terminal under control and terminating a second network for transfer on said layer 2 level; and

a subscriber station device for connecting said first and said second networks with each other and terminating each of said first and said second networks,

15 wherein:

the transmission of the frame is conducted by using a VLAN pass identified by a VLAN tag in said second network, and transmission of said frame added with a frame header including said VLAN tag used in said second

20 network is conducted.

2. The access network system according to claim 1, wherein, in said first network, transmission of said frame is conducted by using a VLAN pass identified by a

25 VLAN tag different from said VLAN tag used in said

second network.

3. The access network system according to claim 1, wherein said subscriber station device is so arranged as to generate said VLAN tag used in said second network in response to a request of connection to said given network from said subscriber terminal.

4. The access network system according to claim 1, wherein MAC addresses of said first network terminal device and said subscriber station device used in said first network are generated according to said VLAN tag used in said first and said second networks, and MAC addresses of said first network terminal device and said subscriber station device are set up to destination MAC address and source MAC address of said frame header.

5. A subscriber station device included in an access network system where a subscriber terminal makes access to a given network, wherein:

a first network connected to said given network side and for performing transfer of a layer 2 level is connected to a second network connected to said subscriber terminal side and for performing transfer of said layer 2 level, and terminating each of said first

and said second networks, said subscriber station device further comprises:

means for transmission of a frame using a VLAN pass identified by a VLAN tag in said second network; and

5   means for adding a frame header including said VLAN tag used in said second network to a frame to be sent to said first network.

6. The subscriber station device according to claim 5,

10 wherein said VLAN tag used in said second network is generated in response to a request of connection to said given network from said subscriber terminal.

7. A network terminal device included in an access

15 network system where a subscriber terminal makes access to a given network, connected to said given network and connected to a first network arranged on said subscriber terminal side, wherein said network terminal device comprises:

20   means for extracting a VLAN tag from a frame header, said VLAN tag being inserted in said frame header added to the frame received from said first network, said VLAN tag of said second network being added to said frame in a second network passing through before being

25 transferred in said first network; and

storage means for storing by matching said VLAN tag

extracted from said frame header with MAC address of

said subscriber terminal being set up as destination of

said frame.

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8. The network terminal device according to claim 7,

wherein said network terminal device comprises:

means for adding a frame header, including said VLAN

tag matched with MAC address of said subscriber terminal

10 and stored, to said frame when a frame addressed to said

subscriber terminal is received from said given network

side; and

means for sending the frame added with said frame

header including said VLAN tag to said first network.

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9. A network terminal device included in an access

network system where a subscriber terminal makes access

to a given network and being able to put said subscriber

terminal under control, wherein said network terminal

20 device comprises:

means for transmitting information to identify said

given network to a subscriber station device where said

subscriber terminal passes through when connecting to a

given network in case a connection setup information to

25 a given network is received from said subscriber

terminal;

means for receiving a VLAN tag corresponding to connection to a given network by said subscriber terminal as a response to information to identify said given network from said subscriber station device;

storage means for storing by matching said VLAN tag with MAC address of said subscriber terminal;

means for adding said VLAN tag being matched with MAC address of said subscriber terminal in said arbitrary frame and stored when an arbitrary frame to be sent from said subscriber terminal to a given network is received; and

means for sending the frame added with said VLAN tag to said subscriber terminal.